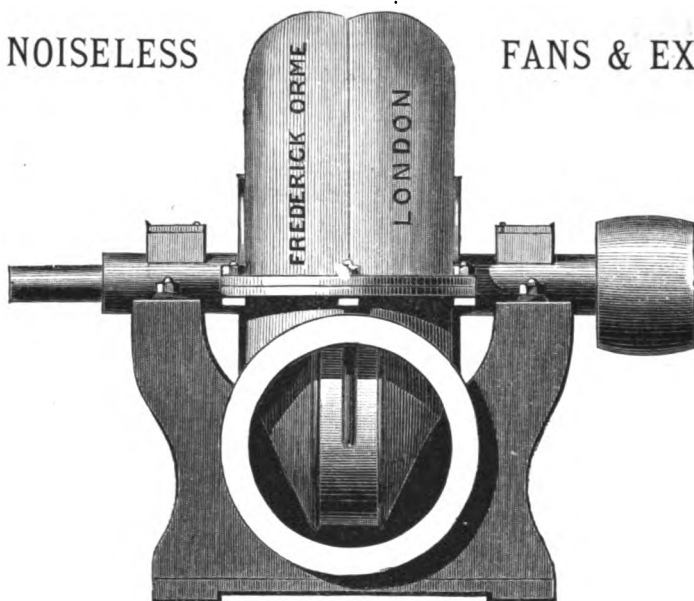


PATENT NOISELESS

FANS & EXHAUSTERS.



These **Fans** and **Exhausters** combine every known improvement in construction, and are guaranteed from data, based on positive practical experience, to produce a **more powerful Blast**, or a more perfect vacuum, at a much less expenditure of power than that required for any other Fan Blower or Exhauster hitherto in use.

THE Leading Features in this Patent ARE :

1st. Its extreme **simplicity** of construction. 2nd. Its total **prevention** of back lash. 3rd. Its entire absence of friction or choking at the sides, when used as an Exhauster for drawing off dust or other impurities. 4th. Its **continuous** and **uninterrupted** suction from the chamber or vessel to be exhausted, unlike the ordinary Fan Blast. 5th. It gives a more perfect Blast with **less expenditure** of power than any other Fan. 6th. It is free from all **humming noise**. 7th. **No power is wasted** by undue friction. 8th. There is almost an impossibility of its being deranged, hence its consequent increased durability.

The Spindles are made of the **best Cast Steel**, running in carefully-prepared Bearings, and made long enough to drive from either side. The Discs also are made of the **best Charcoal Iron**. All the wearing parts are accurately balanced, and the whole warranted of the best material and workmanship. The tremor of the strap axis is confined to one casting, by the bearing standards being cast in one with the lower part of iron casing. The casing is also divided horizontally, as shown in the Engraving, to facilitate the operation of cleaning.

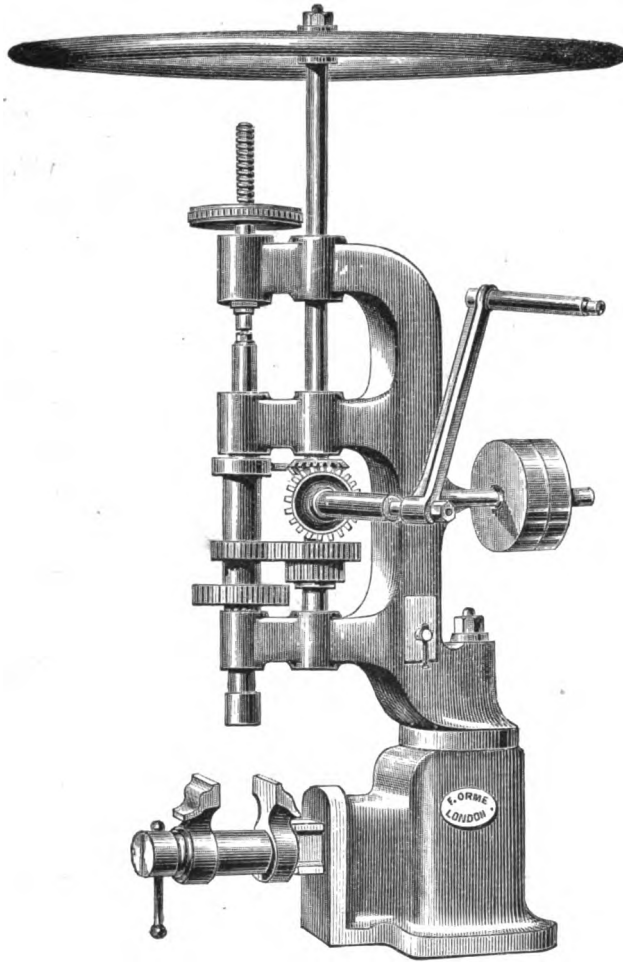
Sizes.	Prices of Blowers.			Quantity of Metal per Hour.	No. of Smithy Fires.	Diameter of Discharge.	Size of Steel Spindle.
inches.	£	s.	d.	cwt.			
10	4	0	0	..	3	4½ rd.	1
13	5	10	0	8	5	6 "	1½
16	7	10	0	15	8	7 "	1½
20	10	0	0	26	13	8 "	1½
25	18	10	0	50	20	9½ "	1½
30	23	0	0	75	30	11 sq.	2
36	30	10	0	100	48	13 "	2½
42	38	0	0	150	70	16 "	2½
48	45	0	0	200	100	22 x 18	2½

The Prices of the various sizes of Fan Exhausters may be taken from the above List of Blowers, with an addition of 25 per cent. on each.

FREDERICK ORME,

OFFICE: ETHELBURGA HOUSE, 70 AND 71, BISHOPSGATE STREET, LONDON, E.C.

DRILLING MACHINE.

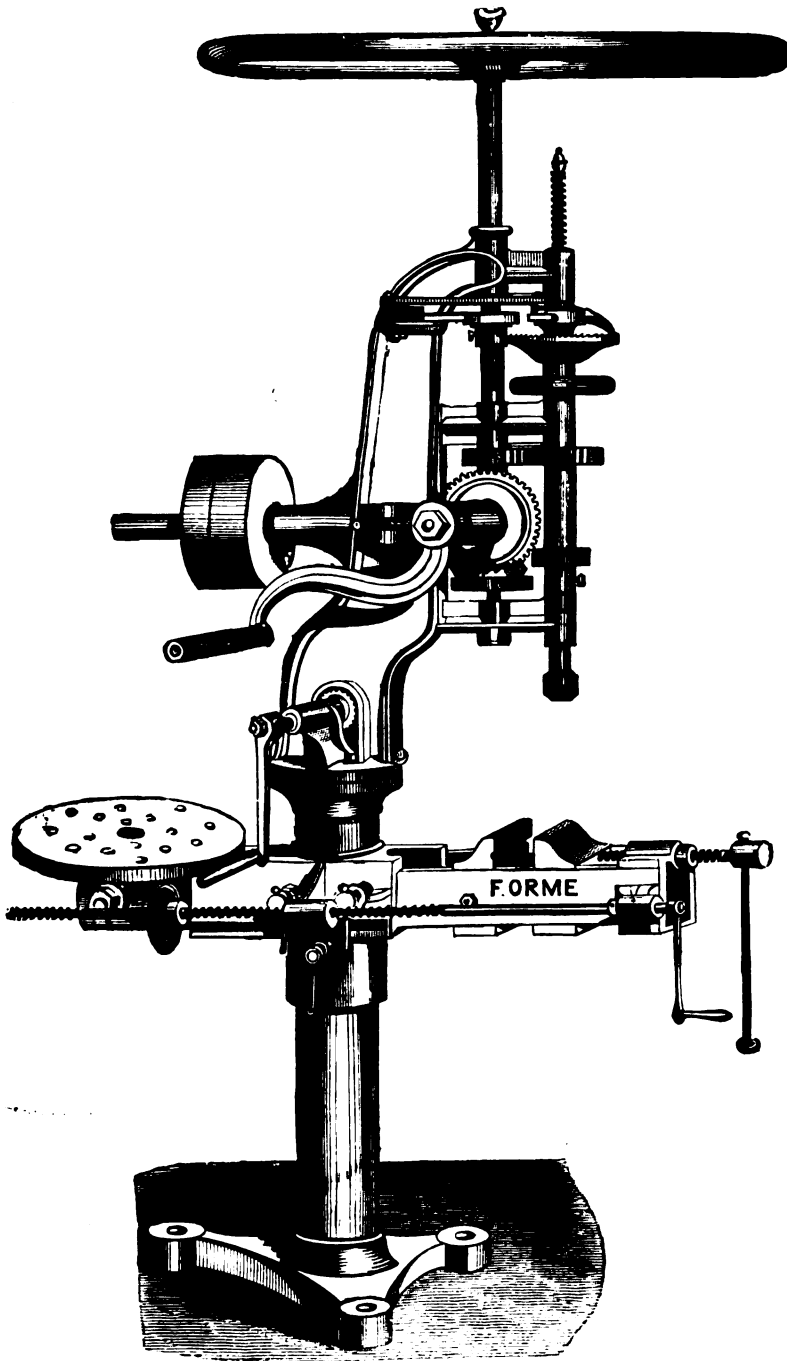


This Machine is specially adapted for Engineers' Light Work, and will be found the most useful Machine in the shop. Will drill holes up to $1\frac{1}{2}$ inch. Is fitted with fast-and-loose Pulleys, also Handle and self-acting feed motion. Will swing clear of the centre to allow of long articles being bored. Price £12.

FREDERICK ORME,

OFFICE: ETHELBURGA HOUSE, 70 AND 71, BISHOPSGATE STREET, LONDON, E.C.

PORTABLE PILLAR DRILLING MACHINE.



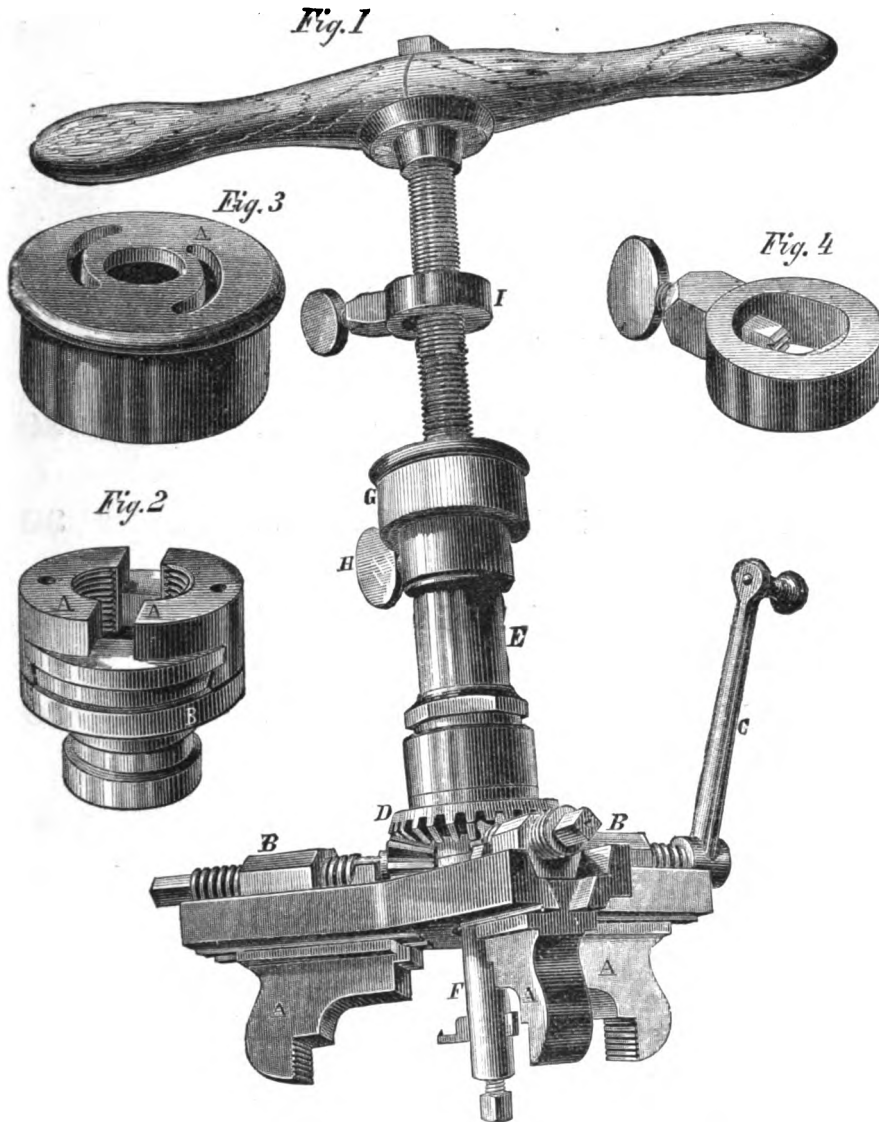
This Machine is fitted with Improved Adjustable Parallel Vice and Universal Circular Table, to rise and fall by rack and pinion, and to swing completely round on the pillar; Handle, fast-and-loose Pulleys, to turn by Hand and Steam Power. Will be found a most useful Machine for holes up to $2\frac{3}{8}$ inches diameter. Price £26.

Smaller Machines made in sizes to drill holes up to $\frac{5}{8}$ for Hand only; and up to $1\frac{3}{4}$ inches diameter, with Handle, fast-and-loose Pulleys, for Hand and Power combined. Prices, £5 to £20.

FREDERICK ORME,

OFFICE: ETHELBURGA HOUSE, 70 AND 71, BISHOPSGATE STREET, LONDON, E.C.

SELF-CENTERING WHEEL-BOXING MACHINE.



IMPORTER OF "CHASE'S" PIPE-CUTTING AND SCREWING MACHINES, $\frac{1}{8}$ to 2 inch. Price £28 0 0
 THE LIGHTENING, SCREWING, AND TAPPING MACHINES, $\frac{1}{4}$ to $\frac{3}{4}$ inch. 13 10 0
 These Machines supersede the ordinary Stocks, Taps, and Dies, and are the best Labour-Saving Machines introduced into this country.
 UNIVERSAL HAND PLANING MACHINES Price, from £10 0 0

Price, complete, £6. Large size, £7.

AMERICAN SPOKE TENONING MACHINES.

See New Illustrated Catalogue, Post-free.

FREDERICK ORME,

IMPORTER OF AMERICAN LABOUR-SAVING MACHINERY,

OFFICE: ETHELBURGA HOUSE, 70 AND 71, BISHOPSGATE STREET, LONDON, E.C.

2 F

IMPROVED NAIL-CUTTING MACHINERY,

MANUFACTURED BY FREDERICK ORME.

SHOE-RIVET MACHINES	Price	£20
TACK-CUTTING MACHINES	„	30
POINTE DE PARIS NAIL MACHINES	„	30
FLOORING and JOINERS' BRAD MACHINES ..	„	45
BILL-CUTTING MACHINES	„	30

These are first sizes; Larger sizes, Price up to £180.

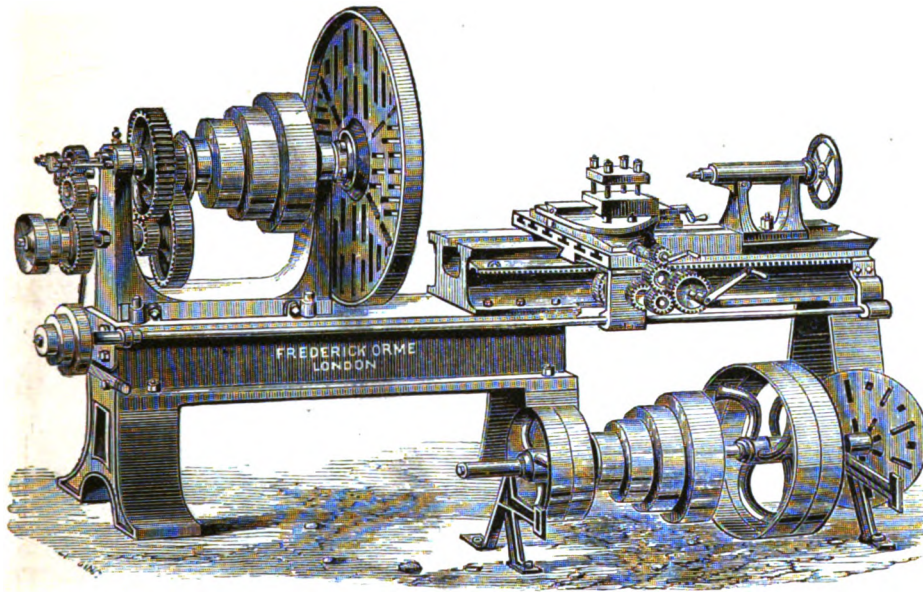
The above Machines are also made **SELF-FEEDING**.



FREDERICK ORME,

OFFICE: ETHELBURGA HOUSE, 70 AND 71, BISHOPSGATE STREET, LONDON, E.C.

PATENT LATHES.



The great **superiority** of these Lathes is owing to the **enormous Belt power they possess**, which is obtained by making the Bed at the fast head stock end lower than at the other (say level with the bottom of gap), and making up the distance with a higher centre fast head, thereby getting room for very large Cones. For instance, the Cone for 12½-inch Centre Lathes is, largest, 3 feet; 2nd, 2 feet 6 inches; 3rd, 2 feet; 4th, 1 foot 6 inches; smallest, 1 foot diameter by 4 inches belt; the fast head stock is 26½ inches high, which is double the size and power of an ordinary 12-inch Lathe.

These Lathes are made extra strong in all parts, with a view to turn off a large amount of work; in fact, to **Forge in the Lathe**.

No.	Height of Centres.	Length of Bed.	Sliding and Surfacing only.	Screw Cutting, Sliding, and Surfacing.	Longer or Shorter Bed per Foot.	Approximate Weight in Cwts.
1	inches. 6½	feet. 8	£ 70	£	£ s.	
2	8½	10	110			
3	10½	15	165			
4	12½	20	225			

Specifications given for other sizes.

FREDERICK ORME,

OFFICE: ETHELBURGA HOUSE, 70 AND 71, BISHOPSGATE STREET, LONDON, E.C.

2 F 2